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DEFENSE INDUSTRY CONVERSION IN THE RUSSIAN FEDERATION: A CASE STUDY OF KALUGA REGION

Vladimir V. Kachalin

Introduction

Military industry conversion offers one of the most significant challenges as well as opportunities of our time. It can substantially reduce the quantity of arms in the world and thereby contribute to overall peace. It is crucial to reallocate the tremendous human material and financial resources from military to civilian use and, thus, enhance social and economic progress all over the world. At present, not only the United States and the countries of the former USSR—the two former major arms-race rivals—seek to promote conversion, but also a good number of other countries such as France, Brazil, China, and states of the former Soviet bloc. No other country, however, was as deeply affected by the militarization of its economic and social life as Russia. The resource drain to the military sector has practically undermined the country's economy, creating a crippled paradigm of economic development and profoundly affecting the interests and outlook of the considerable proportion of population engaged in military production. At the same time, militarization has entailed the dramatic impoverishment of the overwhelming majority of the Russian population. Therefore, defense industry conversion is vitally necessary for the Russian Federation as well as for other CIS countries. This dif-

ficult process must overcome numerous obstacles that can only be solved by intense national and international efforts to facilitate conversion in Russia, an endeavor that must address both intellectual and economic concerns in order to be successful.

The specifics in this paper draw upon the current situation in the Kaluga region, which may be viewed as a typical region in Russia where the defense industry dominates the local economy, but most of the conclusions apply equally well to many other regions of the Russian Federation. The results, therefore, of this case study of the defense industry economic conversion in the Kaluga region can have much broader and general applications than a mere study of local peculiarities. In this respect Kaluga region provides a good research target, because many important and characteristic tendencies and features of defense production and conversion are represented in their pure form in this geographic and administrative area of Russia. They are not camouflaged by external, exogenous factors. For the Kaluga region, as is the case in most other regions in Russia, conversion encompasses not only actions that reduce military production and increase civilian ones, but also include industrial demilitarization and restructuring that entail region-wide institutional, economic, and psychological transformation, all of which will have a di-



rect bearing on the interests of the majority of the population. The analysis of conversion and related economic and social processes at the regional level can also illustrate the political processes in Russia, the role of special interests, and the political pressure exerted by regional powers on the federal system.

Finally, the implications of recent developments in the Russian military-industrial complex (broadly interpreted as not only defense production but also as an economic, social, institutional and political entity) on international security must be addressed. In this respect such issues as the Russian export of arms and the U.S.-Russian competition in the international weapons market as well as the possible political consequences of the current situation in the Russian military-industrial complex (MIC) must also be considered.

Historical and Economic Survey: The Role of Defense Enterprises in Regional Development

Traditionally, the Kaluga region has never produced enough agricultural goods to feed the local population. Peasants, especially those from the southern part of the area, have been forced to search for additional work (primarily in housing construction) in other regions of Russia to maintain their families. Although some forage grain production was and still is located in the northern part of the region, practically no developed industry existed in the area.

The beginnings of the development of Kaluga's present economic structure can be traced from the early 1960s and are closely associated with the name of Andrey Andreyevich Kondrenkov, who was appointed first secretary of the city of Kaluga and the administrative region's Communist Party committee. Kondrenkov occupied that position until 1982, almost until his death. Most of the present leaders in the local government as well as the high-ranking defense industrialists (who until recently were appointed only with the approval of the local Communist Party committee) are from Kondrenkov's "team."

Using his influence with the Communist Party, federal and local administrative structures, Kondrenkov in fact regulated the build-up of the local economy and its structural development according to his own views and beliefs. He vigorously resisted the attempts by central Soviet administrative and

planning bodies to deploy ecologically "dirty" enterprises on the territory of the Kaluga region. For example, despite strong pressures brought to bear by the Soviet State Planning Committee and the Council of Ministries of the Soviet Union and some leading industrial firms (e.g., the Likhachev Auto-works), Kondrenkov managed to prevent the construction of oil-refining and processing enterprises as well as ferrous and non-ferrous metals production in the Kaluga region.

Meanwhile, Kondrenkov facilitated the deployment of relatively ecologically "clean" metal-working, radio-electronic, and atomic enterprises. These enterprises, with very few exceptions, were engaged in defense production.

Kondrenkov's motives were typical of the regional party "nomenklatura" and are not at all difficult to understand:

1. For decades, defense enterprises enjoyed huge governmental allowances and privileges. These enterprises could guarantee highly-paid jobs for the local population, thereby relieving the local government of unemployment and related problems.

2. Defense enterprises were the major source of tax revenues for the local budget and Kondrenkov was certain they would continue to receive multi-million federal government orders for the foreseeable future.

3. Defense enterprise personnel were allotted huge supplies of foodstuffs, consumer goods and services, which were distributed via a special network and sold in the workplace (and thus closed to outsiders) or at special shops at certain times. Even now, employees receive about one-half of all goods and services through these channels. Moreover, providing the local population with goods and services was among the major responsibilities of the local government, which controlled a significant part of the wholesale and retail trades within the geographic area of its jurisdiction. The predominance of defense enterprises in the structure of Kaluga region's economy greatly eased the provision problem for Kondrenkov.

4. Communist Party discipline as well as personal connections and mutual assistance between Kondrenkov and defense industry officials helped the local party and administrative leader to use the enterprises' human resources and technical facilities to solve the current problems of the region—everything from gathering potato crops to assisting the local police.

5. Administrative and Communist Party discipline also induced defense enterprise personnel to be more loyal to the regime and less involved in administrative and legal violations as well as any kind of social protest.

Kondrenkov certainly took all these factors into account when he promoted the development of the defense industry in the Kaluga region. According to formal criteria, Kaluga region could be regarded "prosperous"; for all practical purposes, this solved any problem Kondrenkov might encounter when reporting to higher-ranking Party officials or administrative bodies. It also strengthened his position in the nomenklatura.

At present, most metal-working plants produce turbine engines for military use. The majority of these plants are located in the city of Kaluga. The radio and electronic industries are dispersed throughout the entire region.

Obninsk, known as a center of the atomic industry, is the second largest city in the region. Its inhabitants are primarily employed by the local Nuclear Research Institute, atomic equipment manufacturing plant, the Institute of Physics and Energy Research, and Obninsk Nuclear Power Station. The local nuclear industry concentrates primarily on neutron-effects utilization for energy production and military programs.

The structure of the local economy is supplemented by a few heavy machine-building enterprises. They use archaic technology and are situated mainly in the towns of Sukhinichi and Ludinovo (thermal engine production).

The Kaluga Region: The Social Consequences of Economic Crisis

A brief glance at the economic structure of the Kaluga region suffices to ascertain that the well-being of the local population crucially depends upon the state of affairs at defense enterprises. A significant imbalance in the local economy is all too evident: there are practically no local producers of consumer goods and foodstuffs in the regional market (except several large-scale mechanized bakeries that import flour from other regions in Russia). Nor does the region produce goods suitable for barter exchange. (Due to inflation, transaction difficulties,

and retards, this type of exchange has become a widespread trade practice in Russia.)

The reduction of state defense orders (often by 90%) and, consequently, cash flow, coupled with the crisis of solvency (some Kaluga defense producers have still not received compensation from the government for orders filled two years ago and even longer) have set a number of leading defense enterprises on the verge of economic catastrophe. Many regions in Russia characterized by a high proportion of defense industry in the local economy¹ have followed the same path. Red ink in defense enterprises' balances automatically freezes the financing of crucial local social programs, including housing construction, development of economic and social infrastructure, financial assistance to the needy, etc.

These developments take place on the background of runaway inflation and the generally aggravated economic situation in Russia and add to the significant deterioration of the standard of living. For instance, Obninsk shops stock necessary products, including milk and meat, but the prices are prohibitive for almost 70% of the local population. As results of the field study show, during the last two years the average per capita consumption of meat and milk in the Kaluga region fell by about 60% (in Obninsk, for example, it fell by 40%; in Kozelsk, by 70%). Consumers purchased substitutes for these products, mainly potatoes and other vegetables harvested at local small farmsteads.

The commercial prices of clothing and durable consumer goods are prohibitive for almost 90% of the local population, although some goods are provided by the special distribution networks that service defense enterprises. The prices for these goods are more acceptable to the local population, but the supply falls far short of demand. However, most people regard special distribution networks as the single more-or-less reliable source of durable consumer goods at affordable prices.

At the same time, Kaluga, Obninsk, Zhukovsk, Kozelsk, Maloyaroslavets and other major towns of the region are teeming with so-called private commercial shops that offer a great variety of foreign-made consumer goods and foodstuffs. But the prices in these shops are within the reach of less than 5% of the population. As a rule, the price of one item exceeds a skilled worker's average monthly

1 For example, in Udmurtia defense production accounts for 80% of the total industrial output. (*Izvestiya*, no. 31, February 18, 1993.)

wages. Most of these shops are owned by Caucasian and gypsy entrepreneurs who earn dozens of times more than the average local resident. Moreover, these "foreign" entrepreneurs are perceived by the local population to conduct themselves too freely, which provokes xenophobic feelings among the local population and the sense that democracy and economic reforms work only for these people.

In general, the living standard of Kaluga region's population has fallen to the level of the early of the 1950s. The absolute volume of this reduction, its swiftness, and the increasing hardships faced by the overwhelming majority of the population, all unrelieved by any tangible prospect for improvement, have led to substantial changes in the public's mentality. The growing uncertainty in the near future and the seeming lack of any alternative to improve living standards are the major psychological developments at the individual level. Frustration with economic reforms has made the majority of the population politically reluctant and practically indifferent to what government it has at the local or federal levels.² An increase in public support for pro-communist or totalitarian forces can also be observed. For instance, Zhirinovsky (a chauvinistic politician who seeks to restore the Russian Empire and "order" by means of violence) found a certain appreciation of some of his ideas during his last visit to Kaluga in March 1993. Certainly, the local population's economic misery and political apathy create favorable conditions for the activation of anti-democratic forces in the region.

But social collapse in such Russian regions as Kaluga is more likely to occur not in some organized form, but spontaneously. As the well-known Russian sociologist and philosopher Pitirim Sorokin stated, civil wars begin when the first food store is plundered by common (non-criminal) people. In the worst case scenario, decline in the living standard and reduction of real per capita income below the value of the so-called physiologically necessary minimum (the products necessary to assure physical survival) might entail the disintegration of society—the complete paralysis of law, government, and public institutions—and the struggle for survival aggravated by direct use or threat of force. As recent developments in Tajikistan

and Chichenya show, in such cases real power in the state passes to the hands of the leaders of uncontrolled, spontaneously-formed military units, which command a certain area and fight to enlarge or to protect this sphere of control. Given the wide dissemination of arms, military installations, modern systems of weapons and means of mass annihilation throughout Russia, it is impossible to predict the course of such actions and the results. The potential costs of economic and social collapse are far too great to even be considered an acceptable alternative for the international community.

Economic and political disintegration are no less dangerous than an anti-democratic coup in Russia. The probability of such disintegration is increased by the factor that disintegration processes take place at the regional level and, thus, are less controllable and affected by any central (federal) power. Thanks to its ethnic and social structure,³ the Kaluga region is safer in this respect, but the above-mentioned social processes (for example, the growing crime and violence, organized and structured criminal groups, youth gangs, and the almost total paralysis of the local police) manifest themselves in this region too.

Conversion: A Path to Economic and Social Revitalization?

In the case of the Kaluga region, further decline of the standard of living can be prevented only by channeling the cash flow to defense enterprises located in that area. How can the necessary financing be obtained and what are the consequences with regard to economic, social, and security aspects?

1. Local enterprises receive new military orders.

This way is favored by a good number (if not the majority) of Kaluga industrial executives. It requires neither technological nor organizational changes and it leaves executives within a familiar managerial, organizational, psychological, and economic paradigm. The state contracting system has long accustomed the MIC to a paradigm of economic activity that provides no incentive to search for new markets or a flexible response to demand

2 As the results of the last election show, most of the population of the city of Kaluga and Obninsk supported democratic candidates, while in the surrounding areas, where the population is more politically reluctant, the former nomenklatura managed to retain its positions in the local government bodies.

3 Most of the population is comprised of workers, collective farmers, and technical intellectuals, mainly Russians. There is, however, a growing population of Caucasians (of various ethnic origins).

changes, which has rewarded the growth of specialization in military production. As a rule, government payments for arms and defense equipment include not only compensation for direct production costs and a certain profit margin, but also some quota for technical improvement, social development and employee benefits.

For decades, a director's connections and influence, mainly among the so called Defense 9,⁴ were the major tools to get the most profitable government orders. No competitive bids were held, and competition (if any) was deployed in the ministry lobby and corridors. This led to the formation of a mental paradigm among defense production managers that was far removed from the concept of market competition. Many felt completely ignorant and unprepared in the new situation, when the government ceased to be the main reliable source of finance for the greater part of the MIC. This technocratic mentality and the defense production managers' economic ignorance have only exacerbated the situation, which has resulted in managers pressuring the federal government even harder to issue new orders.

What does it mean for the local economy? Possibly, temporary relief. It is evident, however, that given the present economic conditions in Russia new or additional federal government defense spending can be financed only by inflationary measures, that is, by issuing new government credits (not covered by budget receipts) and printing paper money. In its turn, this means overall increases and all the attendant negative consequences for the local economy and people.

In this respect, economic structural issues should also be taken into account. The benefits (cash flow) from receiving a defense order are concentrated within the area of a contractor's location, while the costs (increased inflation) are dispersed throughout the nation. This induces local government and defense industry officials (as a rule, they have tight personal connections and/or occupy key positions in the local soviet) to pressure the federal government to issue more orders, which may not be in the interests of a neighboring region if one takes into account the inflationary repercussions. In fact, such inter-region competition can only aggravate the entire economic situation. (Incidentally, similar com-

petition of regional industries can be observed in the United States.

In order to put a stop to this process, the Russian government must formulate and implement a military doctrine and a long-term plan of arms development as well as some kind of a catalog of production facilities necessary for its implementation. Both Russia and the West, in particular the U.S., must reach an agreement on coordination of military doctrines and defense build-up plans to ensure mutual security and minimize defense spending.

In fact, such coordination actually exists in an indirect and, thus, more costly and less reliable form: both sides take into account the real and possible actions of its counterpart and undertake preventive or restrictive political and security measures. Such processes are widely and comprehensively described by the models of game theory for competing powers, companies, etc., as well as by the theory of conflict and its resolution. In fact, the only thing both countries need do is legalize the existing status quo and, by so doing, make this coordination less expensive, more effective, and, therefore, more reliable.

2. The federal government provides local defense producers with an allowance to maintain facilities and personnel.

This is more reasonable when compared with the state order made for similar purposes, first of all, because it requires less government money (no costs are allocated for purchasing raw materials, parts, etc.). It could be even more favorable if accompanied by setting a certain time margin (2-4 years) within which a defense enterprise is obliged to find a way to convert to civilian production.

The applicability of this measure also crucially depends on existence of a Russian military doctrine and long-term defense build-up plan.

3. Defense enterprises export basic products (weapons) and thus receive the required cash flow.

All pro and contra considerations of this proposition should be weighed on the economic and security scale.

The reduction of government orders forces enterprises to search for new markets of defense and

⁴ The nine industrial ministries of the former Soviet Union, which carried major responsibility for defense production.

conversion products with preference given to the markets of military products, because they do not require changes in production techniques often costly for producers.

Most defense production managers and local officials consider the export of arms to be the easiest route to obtain hard currency and thus to finance the re-equipment of their enterprises necessary to increase the share of civilian production, personnel retraining, and maintenance of the so-called social sphere (various personnel benefits and social programs financed by the firm). For example, according to the estimates of Udmurtian specialists, local defense enterprises' need for hard currency to maintain the actual conversion rate for 1992-95 amounts to \$170 million. Meanwhile, shipments of weapons allowed for export could bring revenues of up to \$1 billion, that is, several times more than enough, even taking into account President Yeltsin's decree that only 70% of the money earned should be left to the enterprises, while the remainder is to be transferred to the federal budget.⁵ Sales of a few S-300 anti-aircraft and anti-missile complexes (the Russian analog of the U.S. Patriot system) would allow producers to maintain their personnel and to raise money for conversion programs.⁶

Having experienced great difficulties with access to Western peaceful and dual-use product markets (mainly due to the lack of marketing experience and artificial trade barriers created by some Western companies and government bodies⁷), Russian defense companies increasingly concentrate their marketing efforts on Third World countries, providing them with modern arms at low prices. These regimes, however, include countries whose commitment to peace is questionable (e.g., Iran). The economic crisis has forced the Russian government to continue such shipments, making practically no distinction between regimes. The sole limits on export activity are those constraints imposed by Russia's international obligations (e.g., participation in the boycotts against Iraq and Libya, which were among the most profitable foreign markets for the former Soviet Union's defense industry).

Recent developments in Russia's foreign arms trade organization and management in Russia has much to do with the issue discussed. Until recently the Ministry of Foreign Economic Connections (MVES) was the single Russian structure officially permitted to trade arms and to represent defense enterprises' interests at the world market. It embraced several specialized trade firms, including Oboronexport, the agency chiefly responsible for weapons exports. According to the order of the former Russian foreign trade minister Pyotr Aven, MVES restructured its operations and several foreign trade firms were given the opportunity to trade various kinds of arms. As a result, these firms became more and more engaged in price competition not only with foreign competitors, but with each other as well, thereby reducing weapons prices.

This competition became even more vigorous with the abolition of the state monopoly in the field of foreign arms trade. A great number of private mediators rushed into the market. For example, 18 Russian mediators were engaged in the negotiations concerning MIG-29 supplies to Malaysia. With the exception of Oboronexport, none was officially authorized by the government to represent the producer's (Moscow Aircraft Production Amalgamation-MAPO) interests, but all of them expected to receive government authorization if they succeeded.⁸

The creation of private arms exchanges in the CIS and the increasing involvement of existing commodity exchanges in the arms trade can also stimulate price competition. As a rule, these exchanges have relatively liberal trade rules. For example, Ukrainsko-Sibirskaya commodity exchange requires only that arms be sold outside the CIS and that the buyer be licensed by his national government permitting him to trade arms and proving his solvency.

What does this all mean for the interests of international security? Two issues seem to be important in this regard, one worrying and one promising.

It is quite evident that increased competition and reduced prices make Russian-made arms more accessible. Certainly, saturation of the world market with modern arms at low prices is worrying indeed,

5 *Izvestiya*, no. 31, February 18, 1993.

6 *Izvestiya*, February 16, 1993.

7 For example, discriminatory limitation on launching foreign satellites by Russian missiles (see *Finansovye Izvestiya*, February 7-11, 1993) or third-party attempts to prevent the construction of the atomic power station in Iran by the Russian firm Zarubezhatomenergostroy (see *Izvestiya*, no. 43, March 6, 1993).

8 *Kommersant*, no. 10, March 8-14, 1993.

not to mention the growing possibility of unauthorized resale through the chains of uncontrolled mediators to irresponsible regimes or refugee forces. Wide dissemination of Russian-made arms throughout the CIS will increase this possibility.⁹ It challenges the Russian system of arms export control, which, according to President Yeltsin's advisor on conversion, Mikhail Maley, and some defense producers, is "as rigid, as never before."¹⁰ The activities of intermediaries has inclined the Russian government to consider a more restrictive policy to reduce their number. But the prospects of such a decision are uncertain, since some powerful nomenklatura groups stand behind the mediators.

On the other hand, would the world be safer if Russia withdrew from the international arms market? The last several years have witnessed a decline in the Russian share of the world arms market from 38% to 17%, while the U.S. share has increased almost twofold—from 30% to 58%.¹¹ Russia and the U.S. are still in conflict in this field, but the nature of this conflict has changed. Arms shipments no longer serve some political and ideological agenda: both countries are offering arms to the same buyers (as in the case of the Malaysian bid on aircraft) and observe international treaties and U.N. decisions (as in the case of sanctions against Iraq and Libya, which were major foreign clients of the Russian MIC). The present conflict looks more like the clash of national economic interests of the two countries. The stake in this game is likely to range from \$10 to \$30 billion annual sales. To reduce the threat to international security caused by the crisis in the Russian MIC and by the similar processes taking place in the U.S., the countries must embark upon a course of coordinating national export control systems and bilateral (or multilateral) agreements regarding the limitation of the contingent of buyers.

The present official U.S. position is likely to favor such a solution. For instance, U.S. Secretary of State Warren Christopher in a recent interview recognized Russia's right to earn hard currency by shipping arms. At the same time, Christopher emphasized the American concern for providing arms only to "responsible" regimes.¹²

A few words about some promising aspects of the current situation. The greater the competition

and price cuts in the world arms market, the less stimulus will remain for Russian arms producers to compete in this sphere, making alternative conversion markets more and more attractive. As shown below this could facilitate further U.S.-Russian co-operation.

4. Defense enterprise turns from military to civilian production on the domestic market.

The possibility of this particular development varies greatly among specific enterprises and depends on a number of factors. The role of this or that enterprise in the national military build-up, the degree of its specialization in arms production, the value of outlays necessary for conversion, technological specifics as well as the volume and competitiveness of the potential civilian market can be listed as major factors.

In Kaluga region most defense enterprises, especially turbine producers, have a high potential for conversion mainly because their major products are in fact of dual use and can be relatively easily adjusted to peaceful purposes. In addition, they have highly-skilled engineers, developers, and technical specialists who have already moved forward several comprehensive proposals and recommendations on applications of their enterprises' technologies to production of durable consumer goods and civilian equipment. Prototypes of conversion products (e.g., harvesting machines for small farmsteads, heating equipment for rural houses, etc.) have already been produced and physically exist.

Most of the obstacles to the increase of peace production for Kaluga region enterprises are determined not by their technological peculiarities or the unwillingness of their officials. On the contrary, technological specifics and managerial thinking favor conversion in this particular case. What really hinders the transformation to civilian production is the general economic situation in Russia, which retards conversion in the Kaluga area in the following ways:

(A.) The collapse of the Soviet Union and the command economic system, together with increasing regionalism within Russia, led to the rupture of

9 An example of this is the recent attempt by Ukrainian mediators to sell arms to Sierra-Leonean refugee group. Only chance prevented this attempt.

10 *Kommersant*, no. 6, February 8-14, 1993.

11 *Izvestiya*, no. 29, February 16, 1993.

12 *Izvestiya*, no. 39, March 2, 1993.

economic ties with many traditional suppliers of materials and semi-finished products to Kaluga enterprises. Meanwhile, Kaluga manufacturers used to receive materials from various suppliers from almost the entire territory of the former Soviet Union and production crucially depends on such shipments. The federal government can help them to receive the necessary goods for military production by placing orders to suppliers and passing these goods to Kaluga enterprises. Even now, government-owned enterprises are obligated to fulfill state orders and most defense enterprises remain state property. But the government cannot force suppliers to provide the Kaluga enterprises with products necessary for conversion. These orders must be placed by the defense enterprises themselves. But, for the reasons listed above, this is practically impossible.

(B.) Rapid inflation in Russia and the CIS led to a significant increase in prices for all goods and services necessary for production, especially energy and fuel. This entailed a great increase in production costs. To compensate for these costs, Kaluga enterprises, in turn, have raised prices for their products. Despite rather modest profit margins and wage increases, these prices go far beyond the acceptable limit for the bulk of consumers. The impoverishment of the population and the overall crisis of solvency among the Russian enterprises dramatically reduce the volume of the domestic market for conversion products, despite the fact that many of them are greatly needed. Thus, high-volume production cannot be organized and economies on scale can not be applied.

(C.) Most defense producers do not have enough money to re-equip their enterprises or even to readjust existing technology for conversion purposes. This forces them to allocate these costs at per unit sale price and, thus, prices rise even more. Financial constraints also require Kaluga enterprises to insist on payment in advance, because they cannot proceed to production until the cash is in hand. Meanwhile, galloping inflation and slow transactions of payments depreciate the earnings. So, a wise business official has to take this consideration too when setting the price and, thus, increase it even more. The enterprises' finances were severely affected by the rapid reduction of government orders. According to the estimates of Kaluga accountants, most of the local enterprises' budgets can stand 5-10% annual conversion rate (i.e., the rate of reduction of state orders), but the actual decline in state orders to most of the region's enterprises exceeds the av-

erage figure for Russia of 68%, sometimes reaching 90%. Moreover, the federal government has withdrawn a number of previously made orders without compensating the enterprises for the costs of purchasing relevant materials and equipment. Finally, the government has not paid for some orders already filled. These actions have practically ruined the enterprises' finances. Most Kaluga firms have run up multi-million ruble debts and banks will not provide them with additional credits until these debts are paid at least in part.

(D.) Inflation coupled with shortages of many consumer and production goods has not only depreciated the nominal value of money, but also its value as the universal instrument of exchange and transaction. Together with the clumsy and slow-moving Russian banking system, this has engendered the rebirth of more primitive forms of exchange all over Russia and the CIS in general (principally direct commodity barter) or the growing use of foreign hard currency to serve transactions within Russia.

Meanwhile, Kaluga enterprises possess neither popular barter goods (foodstuffs, durable consumer goods, automobiles, non-ferrous metals, etc.) nor sufficient hard currency. Sometimes even the local government has to help them out by providing feed grain (the only marketable agricultural good produced in the northern part of the Kaluga region) to be exchanged for production goods.

All this makes Western orders desirable for applying the human and technological potential of the Kaluga region to peaceful purposes. Let us consider the major benefits as well as costs and obstacles for this suggestion.

5. A Russian defense enterprise receives an order from a Western firm for parts, semi- and/or finished products used in civilian production or consumption.

The primary advantage of this solution is that it removes an enterprise from the vicious circle of Russia's economic problems. The implementation of this option in the Kaluga region seems realistic for the following reasons:

(A.) In fact, most local enterprises have dual-purpose technology, so it would not take too much time or a great lay-out of cash to readjust already existing equipment. The same can be said about their major products. For instance, practically the same turbine can be used for a military and a civilian vessel. Much of the nuclear and electronic technology can

also be applied to commercial purposes without introducing serious and costly changes.

(B.) Price/quality parameters of many Kaluga-made products correspond to world standards or can be improved according to this or that particular market or buyer request. And the per unit prices, prohibitive for the majority of domestic buyers, are more than acceptable for Western customers, since they are below world market prices by 30-70%.

Apart from the direct benefits to suppliers and buyers, cooperation with Western firms can indirectly produce important economic and social benefits for the Kaluga region. In fact, Western orders can be even more attractive for local enterprises than the Russian state order for military products and produce more positive results for the local economy and the general economic and social situation in Russia as well. What are these effects and what can be done by the Russian and Western sides to make them even greater?

First, cash flow to Kaluga enterprises will bring relief to almost everybody in the region by increasing employee wages. An average monthly wage equal to U.S. \$ 250-400 will be sufficient to bring about a significant increase in the standard of living and to ensure a strong commitment of personnel with regard to Western orders. Certainly such wages should be paid only for fulfillment of Western orders, not military ones, to make the first category of orders more attractive. Provisions to guarantee this can be made in the relevant contract or in some other form. For this purpose a defense enterprise can create an affiliated firm with its own address that uses the same facilities and employs almost the same personnel.

At the same time, it would help to solve many social problems in the region, most importantly, the problem of living conditions. The rapid rise of prices for construction materials (five- to tenfold) has almost completely frozen housing construction in the area. Enterprises' social programs, coupled with private savings and some local government allowances, can provide the necessary funds to reinvigorate the housing industry. In general, Western orders can replace military ones and become the major source to finance social and industrial development in the Kaluga region. Sooner or later (rather sooner, than later), this can bring about attitudinal changes in the local population, industry, and government officials: the prospects of improving the standard of living, promotion, etc., would not be tied to the military production paradigm, but rather to competitiveness and closer integration into the

international market system. And this would stimulate increased political and public support for democratic forces and developments in the region.

Measures can be taken to make the deal more beneficial for both the Russian and Western sides. The scheme of "food for semi-products" (turbines, etc.) appears to be an extremely productive one for at least the next one to three years. From 30 to 70% of Western payments on a contract (the precise figure is subject to consideration and depends on the particular case) can be made in the form of wholesale food shipments to be sold in the Kaluga region and, perhaps, in other Russian regions at the discretion of the conversion enterprise. This will help to saturate the local and other Russian food markets and bring down prices, which are now monopolistically established by the so-called collective agricultural enterprises as well as by some state and private enterprises and, thus, force some inefficient enterprises out of the market (many of them still function because of their monopoly on the title of land). In its turn, this can facilitate the transfer of land in Russia to more effective agricultural producers and undermine the positions of the post-Communist bureaucracy in agriculture. Simultaneously, this measure can open the Russian food market to Western suppliers. To achieve optimal results the foodstuffs should be as inexpensive as possible. For this purpose, the food can be less processed (e.g., grain instead of bread, fresh meat instead of sausage, etc.).

To be sure, serious difficulties and obstacles stand in the way of such cooperation. But joint will and effort in conjunction with assistance of the national governments and international organizations can solve these problems. Let's consider some of these issues.

First, the lack of marketing experience on the part of the Russian defense enterprises and the insufficiency of hard-currency financial resources to establish trade and servicing facilities in foreign markets. The easiest and least time-consuming way to solve this problem is to cooperate with a local firm that would sell and service the Russian-made products. This firm could be remunerated by a percentage of sales, the rate being negotiable and determined separately for each particular contract. In this case the biggest Russian outlay should be required to maintain the inventory of parts necessary for servicing the finished product. Initially, favorable term credits should be provided for these purposes by international financial organizations

and institutions or governments to the Russian defense enterprises.

Second, Russian suppliers can experience shortages of international-standard parts and materials to produce competitive finished products. For example, the Russian aircraft builders have come across the difficulties of such kind. As the experience of the Yakovlev Aircraft building enterprise has shown, however, these difficulties can be solved by purchasing necessary parts and materials from Western suppliers. Again, favorable term credits will be needed at the beginning stages of these operations.

The Russians and the American Domestic Market: Costs and Benefits for the U.S.

The placement of some U.S. orders in the Russian defense industry can have both positive and negative consequences for the U.S. The main reasons for the negative ones (costs) is that cheap Russian products would compete with similar goods of American subcontractors and could force some of them from the market. One more relevant issue: Will Russian supplies bring about some sort of American economic or strategic vulnerability? What are the costs of alternative and secondary sources (if necessary) for the U.S.? What restrictions on structure and volume of Russian supplies should be determined by these issues?

The positive aspects (benefits) are also obvious. In the security sphere they are determined by the reduction of the above-mentioned threat. In the economic sphere they can also be important and include the following benefits:

1. A reduction of production costs for American companies by cutting their expenses on materials, semi-finished products, and certain aspects of research and development, etc.; and therefore—
2. Strengthening the position of U.S. defense companies in the world market through more competitive prices; and
3. Extending the U.S. domestic market through increased demand brought about by price reduction; which, in turn, will bring about
 4. Increased consumer surplus; and also
 5. Production growth; and, consequently,
 6. Lower unemployment.

Recommendations

To the Russian defense enterprises:

- * Seek contracts with Western firms regarding the selling and servicing of Russian-made products in the domestic markets of Western countries. Reach an agreement on the percentage of sales that comprise the interest of the Western partner. This would require much less initial outlay than establishing their own trade and servicing facilities. In this case the biggest outlay would be needed to maintain the inventory of parts necessary for technical service of the products sold.

- * Analyze the target foreign market, its price/quality requirements and maintain prices considerably below that market (local antitrust and anti-dumping provisions should be taken into account).

- * Teach the foreign firm's personnel to install and to service the machines or products supplied.

- * Use the money earned to buy food on the foreign market, resell this food in Russia, and, thus, raise funds for conversion.

- * Establish commercial ventures to separate military and civilian operations, the control over such ventures to be retained in the hands of its founders (the Russian defense enterprises).

- * Regard spin-offs of technology, know-how as well as provision of access to facilities and production capacities as an investment made by the founder (defense enterprise) in a newly established venture's capital stock.

- * Do not use funds received from Western joint venture partners to finance shortages of working capital and activities not related to the joint venture's business. This can only discredit the Russian partner and undermine the prospects for further Western investment in the Russian economy.

- * Stimulate personnel to fulfill Western orders by providing an average employee salary equal to US \$ 250-400 per month (for work on concrete orders for the venture, not other tasks). To create special affiliated firms with a separate legal address but using the same facilities and personnel for this purpose.

- * Introduce advanced and flexible methods of labor organization to ensure everybody's concern for the high quality and competitiveness of the product shipped (e.g., team approach, labor participation in profits, etc.).

- * Use revenues from exports to significantly increase wages of leading specialists, engineers, and

technicians to maintain the intellectual potential of an enterprise and to prevent brain-drain, particularly to irresponsible regimes.

To potential Western partners of the Russian conversion enterprises, primarily U.S. industry:

- * Seek contracts as soon as possible with the Russian defense industry for semi-finished products, materials, components, research and development, parts, engines, etc. for American- (Western-) made finished civilian products.

- * Gauge more carefully the reliability of potential partners in establishing joint ventures with Russian firms.

- * Seek contracts with Russian defense enterprises to sell and service their products in the American domestic market or the domestic markets of other Western countries.

- * Search for innovative, unusual, but reliable ways to transact commercial business in Russia. Ascertain the balance of economic interests within a given Russian region and find your firm's place.

- * Apply to national government and international organizations and persuade them to provide insurance and other risk-reducing measures to facilitate operations in Russia.

To the governments of the United States and other Western countries:

- * Facilitate imports of Russian-made products, semi-finished products, components, materials, etc. Stimulate the allocation of the money earned at the national domestic market of the importer's country by buying food for their further resale in Russia to raise funds for conversion.

- * Find out winning and losing parties from the Russian exports among the national companies, investors, employees. Seek some form of compensation for losing parties.

- * Seek an agreement with Russia on the coordination of U.S. and Russian military doctrines to ensure mutual security and to reduce defense spending.

- * Provide incentives for Western firms to deal with the Russian defense enterprises by offering these firms tax credits, insurance, and other risk-minimizing benefits. Use some portion of the aid-to-Russia money for these purposes.

- * Seek an agreement with Russia on regulating competition and conduct at the international arms market.

- * Not to limit the activity of the Russian defense enterprises at the international arms market by political means (except the observation of international treaties, non-proliferation agreements, United Nations decisions, etc.).

- * Seek an agreement with Russia on limiting the contingent of buyers at the world arms market to responsible regimes and limiting the parameters of arms sold by both sides.

To the Government of the Russian Federation:

- * Increase tax deductions on exports of conversion products made by Russian defense enterprises.

- * Facilitate by all possible administrative and legislative means the placement of Western orders with Russian defense enterprises for semi-finished products, materials, etc.

- * Honor debts and provide compensation to defense enterprises for orders withdrawn by transferring a title of land from indebted and insolvent "kolkhozes" and "sovkhozes" (collective agricultural enterprises artificially created during Stalin's regime with the use of force and terror against peasants).

- * Not to order new arms in order to continue defense production and development. Arms spending should be determined only by defense needs and state military doctrine, not by the defense industry's current economic situation. If there is no other way to maintain the human resources and facilities of an enterprise, the Russian government is better off making financial allowances to defense enterprises specially for this purposes.

- * Elaborate a clear military doctrine and long-term defense build-up plan.

- * Seek an agreement with the U.S. on coordination of military doctrines and defense efforts to assure mutual security and reduce defense spending.

- * Seek an agreement with the U.S. to limit the contingent of buyers of weapons at the world market. Limit this contingent to responsible regimes. Under no condition should means of attack be exported to any country.

To local government bodies of the Kaluga region and other Russian regions with a high proportion of the defense industry in the local economy:

- * Use all appropriate means to prevent the per capita income of the local population from falling

below the value of the set of products necessary for human survival.

- * Convert not only defense enterprises but also other sectors of the so-called military towns. This is less important for Kaluga region but more urgent for other regions of Russia with a higher concentration of military installations on their territory.

- * Establish the new model of the balance of interests within the region to make it compatible with conversion goals and market-oriented institutional transformation.

To international economic, financial, and security organizations:

- * Establish comprehensive and widely recognized and observed rules of trade and competition on the international arms market.

- * Provide favorable target credits to the Russian defense enterprises for buying lacking components, materials, etc., necessary for the fulfillment of the Western orders and unavailable in Russia. Credits are better provided in kind (necessary goods and services).

- * Provide insurance and other risk-minimizing measures to Western companies dealing with the Russian defense enterprises, especially in the cases of advanced payment on orders.

Conclusion

The cessation of the political and ideological confrontation between the U.S. and Russia inevitably raises the question of the new geopolitical and geoeconomical roles of the two countries. Until recently, the leadership of the two powers respectively in the Western and the Eastern parts of the globe was based primarily on military strength. During the last 10 to 15 years Western countries welcomed the U.S. leadership, which they regarded as a country that could protect them from the military threat of Communism. More recently, we have witnessed a decline of American competitiveness in the world

market and a gradual deterioration of the position of the U.S. as the world's technological leader in non-military production. Can the U.S. maintain its leadership in the changed world by relying mainly on military strength? What does the term "leadership" itself mean now? And what kind of leadership, if any, does the U.S. need?

Although these questions may appear to be rhetorical, it is evident that in the newly-emerged situation American influence should be based on strengthening its economic role, by increasing its competitiveness and, thereby, enhancing prosperity. The U.S. needs allies whose interests are mutually complementary with its own. West European countries as well as the "new industrial tigers" of Asia, which are not economically dependent on the U.S. and successfully compete with them at the world market, can hardly be these allies. Meanwhile, American companies could enjoy inexpensive goods and services from Russia, other CIS countries, and the states of Eastern Europe and strengthen their price competitiveness and, thus, alter the world market structure in the interests of the U.S.

This could help Russia orchestrate a civilized integration into the international market. It is obvious that as long as Russia remains in autarchy its spontaneous attempts to break through to the world market will only destabilize the latter, as in the case of Russia dumping raw materials. Moreover, as shown above, certain economic processes in Russia could threaten international security. As long as Russia remains outside the world market system, no absolutely reliable guarantees for international security can be instituted.

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